

**Notice of Allowability**

Application No.

09/955,979

Examiner

Prasad R Akkapeddi

Applicant(s)

YOO ET AL.

Art Unit

2871

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/28/2004.
2. ☒ The allowed claim(s) is/are 1,2 and 4-14.
3. ☒ The drawings filed on 06 June 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's arguments, see amendment, filed 07/28/2004, with respect to claims 1,4 and 8 have been fully considered and are persuasive. The rejection of 06/03/2004 has been withdrawn.

### ***Allowable Subject Matter***

2. Claims 1,2 and 4-14 are allowed.
3. The following is an examiner's statement of reasons for allowance:

A search of the prior art did not disclose a liquid crystal display device comprising a combination of structural elements, more specifically:

(a) A first electrode having a plurality of slit patterns directly contacting an insulating film (b) a liquid crystal layer having different alignment directions by each slit pattern (c) at least one light-shielding layer that includes a black matrix below each slit pattern and (d) both the first electrode and the light-shielding layer are within a same unit pixel region.

Prior art does not teach a combination of the recited limitations particularly the first electrode and the light-shielding layer being within a same unit pixel region. Particularly prior art by (a) KO et al. (U.S.Patent No. 6,788,374) teaches an electrode (33) in a unit pixel region represented by the vertical dotted lines has no slits and a light shield layer (21) partially overlaps the neighboring pixel regions. (b) Sakamoto et al. (U.S.Patent No. 6,750,934) on the other hand

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teaches a first electrode (14) with slits in the same pixel region. However, the black matrix (41) is located on the opposite substrate. (c) Yoshida et al. (U.S. Patent 6,583,835) teaches a first electrode (318) having slit pattern and a light shield-layer (315). However, both the first electrode and the light shield layer are in the same layer and Yoshida is silent whether the slit pattern and the light shield layer are within the same unit pixel region.

For the reasons indicated above, none of the prior art teaches a combination of structural elements as recited in the instant claims and hence are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 571-272-2285. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

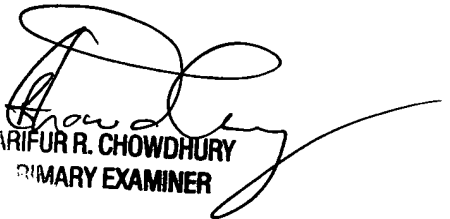
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRA

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Prasad R Akkapeddi, Ph.D  
Examiner  
Art Unit 2871

  
ARIFUR R. CHOWDHURY  
PRIMARY EXAMINER